

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the final Office Action of November 6, 2003 is respectfully requested.

Claims 8-25, including independent claims 8 and 17, are presently pending in this application. In the final Office Action of November 6, 2003, the Examiner rejected claims 8-25 as being unpatentable over the Kimura reference (USP 6,106,353) in view of the Lee reference (USP 6,283,814). On April 6, 2004, the Applicants submitted a Request for Reconsideration, including arguments traversing the prior art rejections. However, in the Advisory Action mailed April 21, 2004, the Examiner maintained the prior art rejections. Thus, independent claims 8 and 17 have now been amended so as to further distinguish the present invention from the prior art as applied by the Examiner. For the reasons discussed below, it is respectfully submitted that amended claims 8-25 are clearly patentable over the prior art of record.

As an initial matter, the Applicants do not acquiesce to the Examiner's position that original independent claims 8 and 17 are unpatentable over the Kimura reference and the Lee reference, and the remarks set forth in the Request for Reconsideration filed on April 6, 2004 are still applicable. Nonetheless, in an effort to further prosecution and hasten allowance of this application, independent claims 8 and 17 have now been amended so as to incorporate some of the subject matter described on page 7, paragraph [0023] through page 8, paragraph [0026] of the substitute specification (corresponding to page 11, line 14 through page 12, line 19 of the original specification). For the reasons set forth below, it is respectfully submitted that amended claims 8-25 are clearly patentable over the prior art of record.

Independent claims 8 and 17 have now been amended to recite that the shadow mask to which the preliminary and main tension forces are to be applied has a perforation region including a plurality of *elongated* through holes. In addition, the shadow mask has a pair of opposing shorter sides, and each of the shorter sides has a *curved center recess section*. In order to illustrate the benefits of this method, the Applicants have now prepared and submitted herewith an Appendix, including Figures A and B for the Examiner's benefit.

As explained on page 7, paragraph [0023] through page 8, paragraph [0026] of the substitute specification, providing a curved center recess section at each of the shorter sides of the shadow mask, in combination with providing the elongated through-holes, is effective in reducing uneven stress distribution in the plane of the shadow mask when the preliminary and main tension forces are applied. In particular, as illustrated in Figure B of the attached Appendix (which illustrates the tension forces applied to the shadow mask of the present invention), the reaction force F3 caused by the preliminary tension force F applied to each corner of the mask can be divided into components F1 and F2 in a lateral direction and a semi-vertical direction, respectively, so as to form a parallelogram. Consequently, the reaction force F3 is shifted to the upper side of diagonal D1 (i.e., is shifted toward the lateral force component F1). As a result, force expansion can be effectively reduced to thereby reduce uneven stress distribution within the plane of the shadow mask so as to ensure removal of wrinkles during application of the preliminary tension force.

The Kimura reference utilizes a shadow mask having a generally rectangular shape, but does not include a curved center recess section at any opposing sides, or elongated through-holes. In particular, the shadow mask of the Kimura reference as illustrated in Figure A has two sets of straight opposing sides. Therefore, the reaction force F13 caused by the preliminary tension force F applied to each corner of the mask will be divided into components F11 and F12 in the lateral direction and the vertical direction, respectively, so as to form a rectangle. Consequently, the force F13 will lie directly on the diagonal D11 of the mask, so that the force expansion is not effectively reduced in order to reduce any uneven stress distribution.

The Lee reference also does not disclose or suggest applying a preliminary tension force to a shadow mask that has a perforation region including a plurality of elongated through holes, and having a pair of opposing shorter sides in which each of the shorter sides has a curved center recess section. Therefore, one of ordinary skill in the art would not be motivated by the Lee reference to modify the Kimura reference or to combine the references in a manner that would result in the invention of amended independent claims 8 and 17. Accordingly, it is respectfully submitted that amended independent claims 8 and 17, and the claims that depend therefrom, are clearly patentable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. However, if the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact the Applicant's undersigned representative.

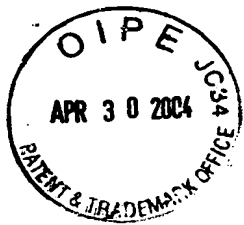
Respectfully submitted,

Naomi NISHIKI et al.

By: 

W. Douglas Hahm
Registration No. 44,142
Attorney for Applicants

WDH/gtg
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
April 30, 2004



APPENDIX
SERIAL NO. 09/742,390
AMENDMENT FILED
APRIL 30, 2004

FIGURE A

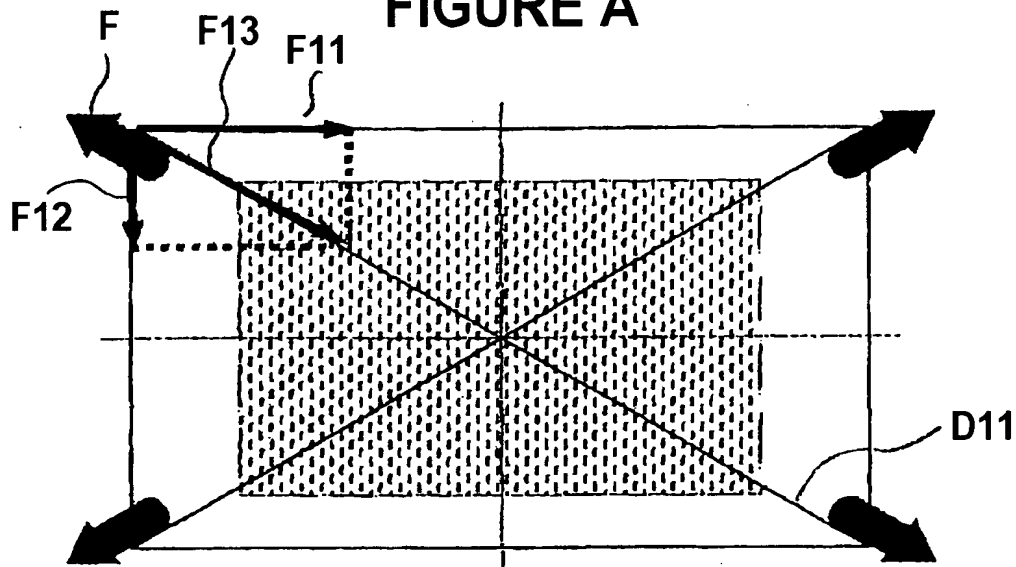


FIGURE B

